

means for embedding [the] a watermark representing the second bitpattern in the information to be recorded [and generator means for generating the second bitpattern according to the predefined relationship between the first and the second bitpattern]; [,] and [in that]

a player for reproducing the recorded information from the information carrier and including [the player includes] verification means for verifying the relationship between the second bitpattern and the first bitpattern.

2. (twice amended) The system [as claimed in] of claim 1, [characterized in that] in which the relationship includes a cryptographic one-way function.
3. (twice amended) The system [as claimed in] of claim 2, [characterized in that] in which the second bitpattern is generated by applying a one-way function to the first bitpattern.
4. (twice amended) The system [as claimed in] of claim 1, [characterized in that] in which the second bitpattern identifies the encoder means.
5. (twice amended) A recorder [for use in the system of claim 1,] for recording information on an information carrier [comprising] having a medium mark representing a first bitpattern, the recorder [includes] comprising:  
generator means for generating a second bitpattern according to a predefined relationship to the first bitpattern;  
encoder means for embedding a watermark representing the second bitpattern in the information to be recorded; [the watermark representing a second bitpattern,] and  
[generator means for generating the second bitpattern according to a predefined relationship between the first and the second bitpattern].

6. (twice amended) The recorder [as claimed in] of claim 5, [characterized in that] in which:

the recorder further comprises marking means for creating the medium mark on the information carrier; and [in that]

the generator means includes means for generating the first bitpattern from a seed according to a further predefined relationship.

7. (twice amended) The recorder [as claimed in] of claim 5, [characterized in that] in which the generator means [are arranged for generating] generate the first bitpattern by combining a first part represented by a prepressed mark on a recordable information carrier and a second part generated from the seed.

8. (twice amended) The recorder [as claimed in] of claim 6, [characterized in that] in which the further predefined relationship includes a cryptographic one-way function.

9. (twice amended) An information carrier [for use in the system of claim 1, the information carrier] comprising: [recorded information and]

a medium mark representing a first bitpattern; and [,characterized in that the]

recorded information [includes] including a watermark representing a second bitpattern [which second bitpattern has] having a predefined relationship to the first bitpattern.

10. (twice amended) The information carrier [as claimed in] of claim 9, [characterized in that] in which the first bitpattern includes:

a first part identifying a source of the information carrier; [,] and

a second part identifying the recorded information.

11. (twice amended) A player [for use in the system of claim 1, for reproducing information from an information carrier and] comprising:

means for detecting a medium mark representing a first bitpattern in information reproduced from a record carrier; [, characterized in that the player includes]

watermark read means for detecting a second bitpattern represented by a watermark in the [recorded] reproduced information; [,] and [in that the player includes]

verification means for verifying a predefined relationship between the second bitpattern and the first bitpattern.

12. (twice amended) The player [as claimed in] of claim 11, [characterized in that] in which the verification means includes a cryptographic one-way function.

13. (twice amended) The player [as claimed in] of claim 12, [characterized in that] in which:

the verification [s] means are arranged for generating a verification pattern by applying a one-way function to the first bitpattern; and

the verification means include [s] means for comparing the verification pattern and the second bitpattern.

14. (amended) The system of claim 1, in which:

the relationship includes a cryptographic one-way function; [,]

the second bitpattern is generated by applying [a] the cryptographic one-way function to the first bitpattern; [,] and the second bitpattern identifies the encoder means.

15. (amended) The recorder of claim 5, in which:

the recorder further comprises means for recording the watermarked information on the record carrier;

the predefined relationship includes a cryptographic one-way

function:

the second bitpattern is generated by applying [a] the one-way function to the first bitpattern; [,]

the second bitpattern identifies the encoder means; [,]

the recorder [includes] further comprises marking means for creating the medium mark on the information carrier; [and in that]

the generator means include means for generating the first bitpattern from a seed according to a further predefined relationship; and [,]

the generator means are arranged for generating the first bitpattern by combining a first part represented by a prepressed mark on a recordable information carrier and a second part generated from the seed; [, and

the further predefined relationship includes a cryptographic one-way function].

16. (amended) The information carrier of claim 9, in which:

the relationship includes a cryptographic one-way function [, the second bitpattern is generated by applying a one-way function] that when applied to the first bitpattern, reproduces the second bit pattern; and

the second bitpattern identifies the encoder means.

17. (amended) The player of claim 12, in which:

the player further comprises means for reproducing recorded information from a record carrier;

the relationship includes a cryptographic one-way function; [,]

the [second bitpattern is generated by applying a] one-way function is applied to the second bit pattern in a process to reproduce the first bitpattern; [,] and

the second bitpattern identifies the encoder means.

Please add the following new claims